

AMENDMENTS TO THE CLAIMS

Please cancel claims 2-10 and 14 without prejudice and amend claims 1, 11 and 12 as follows:

1. (Currently Amended) An optical cross-connecting device for switching wavelength multiplexed signals input from a plurality of optical fibers, comprising:

switching means for switching per ~~only~~ wavelength group for a part of a plurality of said wavelength multiplexed signals, said switching means comprising:

a first optical switch for switching the wavelength multiplex signals;

first wavelength group demultiplexers for dividing input wavelength multiplexing signals output from the first optical switch into a plurality wavelength groups having first granularity;

second optical switches for switching, per wavelength group, for only signals having the first granularity;

second wavelength group demultiplexers for dividing a part of a plurality of wavelength groups output from said second optical switches into a plurality of wavelength groups having a second granularity smaller than said first granularity; and

third optical switches for switching per wavelength signal and adding/dropping for individual wavelength signals extracted from the groups output from said second wavelength group demultiplexers.

Claims 2-10 (Cancelled).

11. (Currently Amended) An optical cross-connecting device as set forth in claim 5, ~~wherein said switching means comprises: electrical switches as replacement for said third~~

optical switches; for switching wavelength multiplexed signals input from a plurality of optical fibers, comprising:

switching means for switching per wavelength group for a part of a plurality of said wavelength multiplexed signals, wherein said switching means comprises:

a first optical switch for switching per the wavelength multiplexed signal for the wavelength multiplexed signals input from a plurality of optical fibers;

first wavelength group demultiplexers for dividing wavelength multiplexing signals input from a plurality of said optical fibers into a plurality wavelength groups having first granularity;

second optical switches for switching per wavelength group for said wavelength groups having said first granularity output from said first wavelength group demultiplexers;

second wavelength group demultiplexers for dividing a part of a plurality of wavelength groups output from said second optical switches into a plurality of wavelength groups having a second granularity smaller than said first granularity;

fourth optical switches for switching per wavelength group for a part of a plurality of wavelength groups output from said second wavelength group demultiplexers;

wavelength demultiplexers for dividing a part of plurality of wavelength groups output from said fourth optical switches into respective indicative wavelength signals; and

electrical switches for switching per wavelength signal and adding/dropping for individual wavelength signals output from said wavelength demultiplexers,

optical receivers for converting individual wavelength signals output from said wavelength demultiplexers into electric signals to input to said electrical switches; and

optical transmitters for converting individual electric signals output from said electrical switches into individual wavelength signals and outputting to said wavelength multiplexers.

12. (Currently Amended) An optical cross-connecting device for switching wavelength multiplexed signals input from a plurality of optical fibers, comprising:

switching means for switching per wavelength group for a part of a plurality of said wavelength multiplexed signals as set forth in claim 1, wherein said switching means comprises:

a first optical switch for switching per the wavelength multiplexed signal for the wavelength multiplexed signals input from a plurality of optical fibers;

first wavelength group demultiplexers for dividing wavelength multiplexing signals input from a plurality of said optical fibers into a plurality wavelength groups having first granularity;

second optical switches for switching per wavelength group for said wavelength groups having said first granularity output from said first wavelength group demultiplexers;

second wavelength group demultiplexers for dividing a part of a plurality of wavelength groups output from said second optical switches into a plurality of wavelength groups having a second granularity smaller than said first granularity;

fourth optical switches for switching per wavelength group for a part of a plurality of wavelength groups output from said second wavelength group demultiplexers;

wavelength demultiplexers for dividing a part of plurality of wavelength groups output from said fourth optical switches into respective indicative wavelength signals; and

third optical switches for switching per wavelength signal and adding/dropping for individual wavelength signals output from said wavelength demultiplexers.

13. (Original) An optical cross-connecting device as set forth in claim 12, wherein said switching means further comprises:

wavelength multiplexers for multiplexing individual wavelength signals output from said third optical switches into wavelength groups having said second granularity to input to said fourth optical switches;

second wavelength group multiplexers for multiplexing wavelength groups other than a part of wavelength groups output from said fourth optical switches into wavelength groups having said first granularity to input to said second optical switches; and

first wavelength group multiplexers for multiplexing the wavelength group other than said part of the wavelength groups and output from said second optical switches into single wavelength multiplexed signals to input to said first optical switch.

14. (Cancelled).